

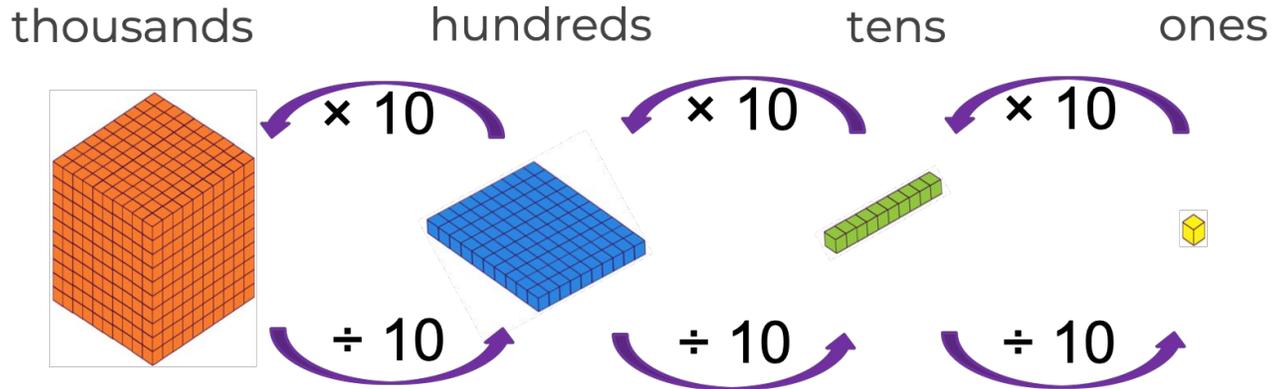
Mathematics

# **Number systems- Writing base 10 numbers in different bases worksheet**

Mr Maseko



# Try this



How many sentences can you write using the diagram?



"I can see that one ten is ten times greater than one one"

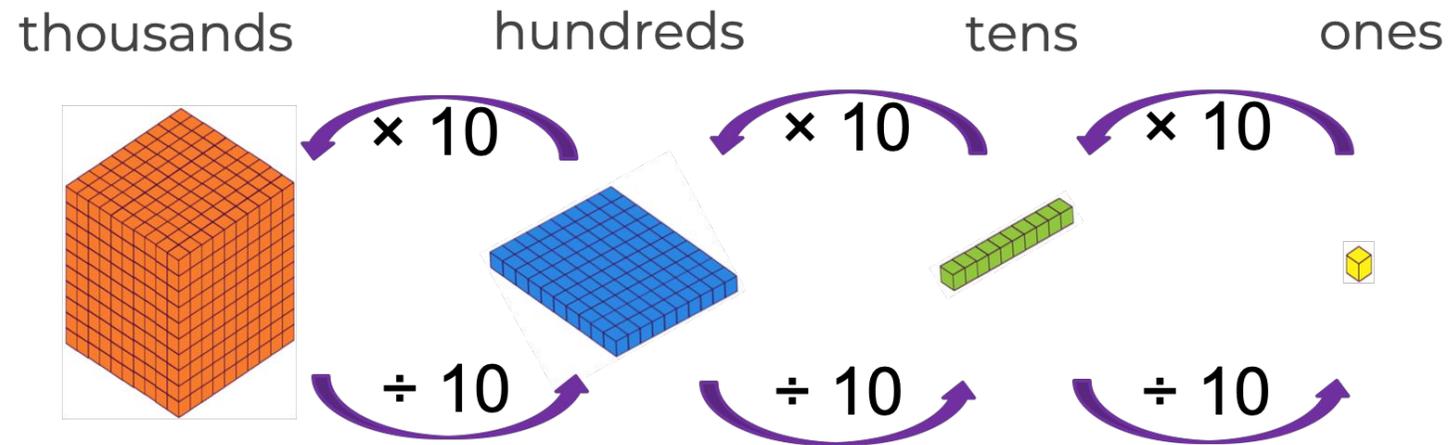


"I can see that one thousand is 100 times greater than one ten"



# Connect

What is base  
10?



Example: 2349



# Connect

This is twenty four written in base 10

$24_{10}$

This is twenty four written in base 5

$44_5$

Write  $28_{10}$  is base 5.



# Connect

This is twenty four written in base 10

$24_{10}$

This is twenty four written in base 7

$33_7$

Write  $28_{10}$  is base 7.



# Independent task

Write each of these numbers in base 10

1)  $23_5$

2)  $21_7$

3)  $35_8$

4)  $40_5$

5)  $123_4$

6)  $1010_2$



## Independent task

## Binary

64s

32s

16s

8s

4s

2s

1s

Write each of the following base 10 numbers in base 2

1) 24

2) 32

3) 35

4) 4

5) 64

6) 128

7) Write this binary number in base 10:

1000101

Why do you think the base 2 system is called the binary system?

